

AMENDMENTS TO THE ABSTRACT

Please delete the section entitled "ABSTRACT OF THE DISCLOSURE" in its entirety and substitute the following section therefor:

ABSTRACT OF THE DISCLOSURE

An apparatus for performing cryptographic operations. The apparatus includes an x86-compatible microprocessor that has fetch logic, algorithm logic, and execution logic. The fetch logic is configured to receive a ~~cryptographic instructionsingle, atomic cryptographic instruction~~ as one of the instructions in an application program executing on the x86-compatible microprocessor. The ~~cryptographic instructionsingle, atomic cryptographic instruction~~ prescribes one of the cryptographic operations and one of a plurality of cryptographic algorithms. The algorithm logic is operatively coupled to the ~~cryptographic instructionsingle, atomic cryptographic instruction~~. The algorithm logic directs the x86-compatible microprocessor to execute the one of the cryptographic operations according to the one of a plurality of cryptographic algorithms. The execution logic is operatively coupled to the algorithm logic. The execution logic executes the one of the cryptographic operations. The execution logic includes a cryptography unit for executing a plurality of cryptographic rounds required to complete the one of the cryptographic operations